

Heavy vehicle specialist certificate

Must be presented to a CoF (heavy) inspecting organisation
Heavy vehicle specialist inspector and inspecting organisation

Heavy vehicle specialist inspector's or manufacturing inspecting organisation's name (PRINT IN CAPS) ID
Chris Clarke CJC

Vehicle registration (optional) VIN/chassis number
7A9E10017H1023570

Make **DOMETT** Component being certified:

Model (optional) Chassis Load anchorage

Certification category **HVEK** Log bolsters Towing connection Brakes

SRT PSV stability PSV rollover

Swept path PBS

Description of work

**CERTIFY TO HEAVY VEHICLE BRAKE RULE 32015/4.
NEW ZEALAND HEAVY VEHICLE BRAKE SPECIFICATION.**

Code/standard/rule certified to Component load rating(s)
SCHEDULE 5 **GVM 30,000 Kgs**

General drawing number(s) **BRAKES 35,200 Kgs**
N/A

Supporting documents
BRAKE CODE CERTIFICATE LC170302

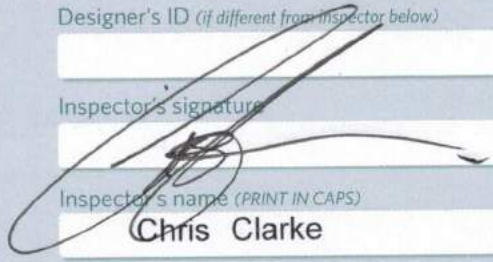
Special conditions (optional)
WARNING LAMP MUST ILLUMINATE WHEN IGNITION IS SWITCHED ON & THEN EXTINGUISH IMMEDIATELY OR WHEN VEHICLE SPEED EXCEEDS 7 KPH

Certification expiry date (if applicable) or Hubodometer reading (whichever comes first)
UNTIL MODIFIED or CHANGE OF USE

Declaration

I the undersigned, declare that I am the heavy vehicle specialist inspector identified and I hold a current valid appointment. I certify that the above mentioned vehicle component's design, manufacture and installation, and this certification complies in all respects with the Land Transport Rule: Vehicle Standards Compliance 2002 and my appointment. To the best of my knowledge the information contained in the certificate is true and correct.

Designer's ID (if different from inspector below)

Inspector's signature 

Inspector's name (PRINT IN CAPS) ID number
Chris Clarke **C J C**

Date Number
22-Mar-17 **584366**

CoF vehicle inspector ID CoF vehicle inspector signature Date

All fields are mandatory unless otherwise stated.

WABCO START-UP LOG

System	Trailer EBS-E	WABCO part number	480 102 064 0
Production date	2015-09-16	Serial number	436013124700K
Serial number (modulator)	000000108859		
Fingerprint Customer EOL / Customer Development / Flash Program	W503643 / 2017-03-22 ; 00000000 / 0000-00-00 ; 00000000 / 0000-00-00		

WABCO		TRAILER EBS-E		GGVS/ADR TUEH TB 2007 - 019.00 TDB0870											
HERSTELLER MANUFACTURER CONSTRUCTEUR	DOMETT T&T		GIO	Pin1	Pin3	Pin4									
TYP TYPE TYPE	5AFT TANKER		1	ILS1	---	ILS1									
VEHICLE IDENT. NUMBER CHASSIS NUMBER NUMERO DE CHASSIS	7A9E10017H1023570		2	eTASC	---	eTASC									
BREMSBERECHNUNGS-NR. BRAKE CALCULATION NO. CALCUL DE FREINAGE NO.	TP2017 SAF NEW		3	ALS2	ALS2	---									
POLRADZAHNEZAHL c-d e-f POLE WHEEL TEETH c-d e-f DENTS ROUE DENTÉE c-d e-f	90	90	4	---	---	LS1									
		ABS-System ABS-System Système ABS	5	DIAG	DIAG	DIAG									
RSS RSS RSS	Einfachbereifung Single Tire Monte simple	Lenkachse Steering axle Essieu virus	6	---	---	---									
	Zwillingsbereifung Twin Tire Monte jumelés	X	7	---	---	---									
		Kippkritisches Fahrzeug Critical Trailer Véhicule critique													
Subsystems	---	I/O	24N												
	pm (bar)	6.5	pm (bar)	0.8	2.0	---	6.5						(bar)		
													1.0	Pz	
ACHSE AXLE ESSIEU										TYP TYPE	(mm)	(mm)	TR (daN)		
1	1400	0.5	1.5	8000	5.1	0.4	1.3	---	5.8	-	18	65	69	506	3799
2	1400	0.5	1.5	8000	5.1	0.4	1.3	---	5.8	-	18	65	69	506	3799
3	1100	0.3	1.2	6400	3.9	0.3	1.4	---	4.6	-	14 / 16	64	69	500	2781
4	1100	0.3	1.2	6400	3.9	0.3	1.4	---	4.6	-	14 / 16	64	69	500	2781
5	1100	0.3	1.2	6400	3.9	0.3	1.4	---	4.6	1	14	64	69	500	2781

TEBS-E

Diagnostic memory	OK	Warning lamp control	OK
Parameter setting	carried out	Stop light supply	OK
EBS pressure test	OK	Lifting axle test	Not tested
Redundancy test	OK	ECAS height sensor calibration	Not tested
ABS sensor assignment	OK	Height sensor axle load	Not tested
RTR test	Not tested	Leak test	Not tested
Immobilizer test	Not tested	Signal outputs	Not tested
Signal inputs	Not tested	Tag axle test	Not tested

Electronic Extension Module

Diagnostic memory	Not tested	Signal outputs	Not tested
TailGUARDlight	Not tested	TailGUARD	Not tested

Manufacturer	DOMETT T&T	Vehicle ident. no	7A9E10017H1023570
Vehicle type	5AFT TANKER	Odometer reading	0.0 km
next Service	0 km	Trip reading	0.0 km
Tester	Chris Clarke	Signature	
Date	2017-03-22 10:21:36 a.m.		

trailer (full, semi-, centre-axle) with air brake system acc. to 71/320/EEC, last amended by 98/12/EC and 2006/96/EC

please note!

This brake calculation is made under consideration of
 -the legal precriptions mentioned above in the version valid at the time of making the program (V6.14.04.20).
 -the functional characteristics of our products as well as the data of the brake out of the test approvals of the axle manufacturers, and
 -the other vehicle data included in the brake calculation.
 Please check whether these data correspond to the actual vehicle data.
 Our conditions of delivery apply (particularly section 9.0).
 In any case we commend to do a braking harmonisation!
 WABCOBrake V6.14.04.20 db 20.04.2016

distribution: DOMETTS
 2017, 5A, SAF,
 NEW TANKER
 SAF CALIPERS

vehicle manufacturer: DOMETTS
 trailer model : 2017 5A TANKER, E1001 SAF
 trailer type : 5-axle-full-trailer
 remarks : air / hydraulic / VA suspension
 EC w.o.annexVII
 WABCO TRAILER - EBS
 TRISTOP 3+4: T.14/24
 265/70 R 19,5

axle 1 + 2 + 3 + 4 + 5 : SAF, SBS 1918, TDB 0870 ext01 ECE,

		unladen	laden
total mass	P in kg	6100	35200
axle 1	P1 in kg	1400	8000
axle 2	P2 in kg	1400	8000
axle 3	P3 in kg	1100	6400
axle 4	P4 in kg	1100	6400
axle 5	P5 in kg	1100	6400
wheel base	E in mm	5700 - 5700	
centre of gravity height	h in mm	900	1524

	axle 1	axle 2	axle 3	axle 4	axle 5
no. of combined axles	1	1	1	1	1
no. of brake chambers per axle line	2	2	2	2	2
The power output corresponds to	BZ 122.1	BZ 122.1	BZ 119.6	BZ 119.6	BZ 122.1
brake chamber manufacturer	Meritor	Meritor	Meritor	Meritor	Meritor
chamber size	18.	18.	T.14/24	T.14/24	14.
lever length	76	76	76	76	76
brake factor	22.37	22.37	22.37	22.37	22.37
dyn. rolling radius	rdyn min in mm	421	421	421	421
dyn. rolling radius	rdyn max in mm	421	421	421	421
threshold torque	Co Nm	6.0	6.0	6.0	6.0

calculation:

chamber pressure(rdyn min)pH at z=22,5%bar	2.2	2.2	2.0	2.0	2.0
chamber pressure(rdyn max)pH at z=22,5%bar	2.2	2.2	2.0	2.0	2.0
chamber press.(servo)pcha at pm6,5bar bar	5.8	5.8	4.6	4.6	4.6
piston force	ThA at pm6,5bar N	6172	6172	4385	4385
brake force(rdyn min)T lad. at pm6,5bar N	49996	49996	35408	35408	35408
brake force(rdyn max)T lad. at pm6,5bar N	49996	49996	35408	35408	35408
brake force within 1 % rolling friction					
proportion	%	21.2	21.2	19.2	19.2

braking rate z laden 0.597 for rdyn min
 z = sum (TR)/PRmax 0.597 for rdyn max

Trailer may only be operated in combination with trucks/tractors with ISO 7638 supply (5 or 7 polar).

brake diagram :

maximum pressure: 8.5 bar

axle 1:

valve 1: 480 207 0.. 0 WABCO or 480 207 2.. 0
EBS relay valve

brake cylinder: Meritor 18HSCLD64

axle 2:

valve 1: 480 207 0.. 0 WABCO or 480 207 2.. 0
EBS relay valve

brake cylinder: Meritor 18HSCLD64

axle 3:

valve 1: 480 102 0.. 0 WABCO
EBS trailer modulator

brake cylinder: Meritor 1424HTLD64

axle 4:

valve 1: 480 102 0.. 0 WABCO
EBS trailer modulator

brake cylinder: Meritor 1424HTLD64

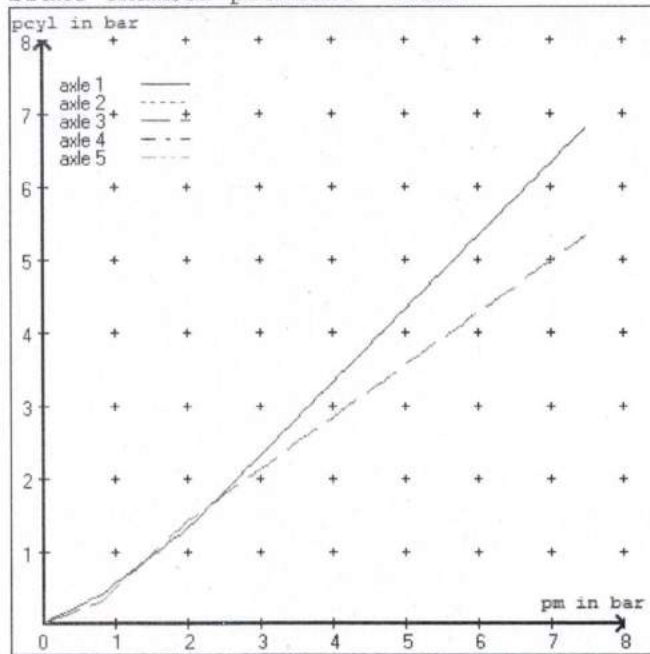
axle 5:

valve 1: 480 102 0.. 0 WABCO
EBS trailer modulator

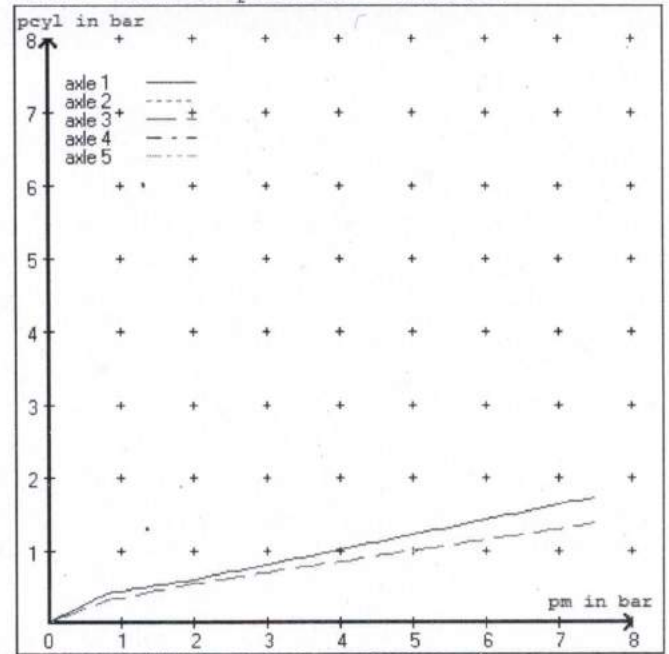
brake cylinder: Meritor 14HSCLD64

test type III (zIII = 0.30)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 3.6 bar =>	pcha in bar :	2.9	2.9	2.5	2.5	2.5	
test type III (zIII = 0.06)	for rdyn min :	axle1	axle2	axle3	axle4	axle5	
at pm 1.3 bar =>	pcha in bar :	0.8	0.8	0.7	0.7	0.7	

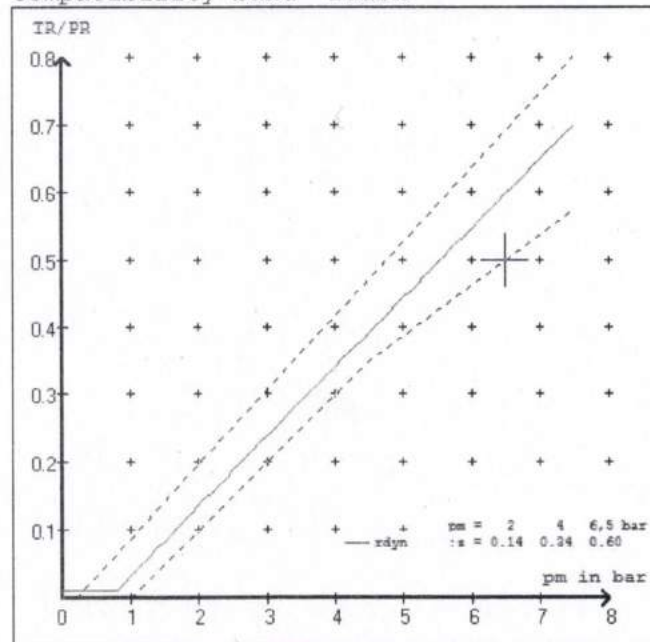
brake chamber pressure laden



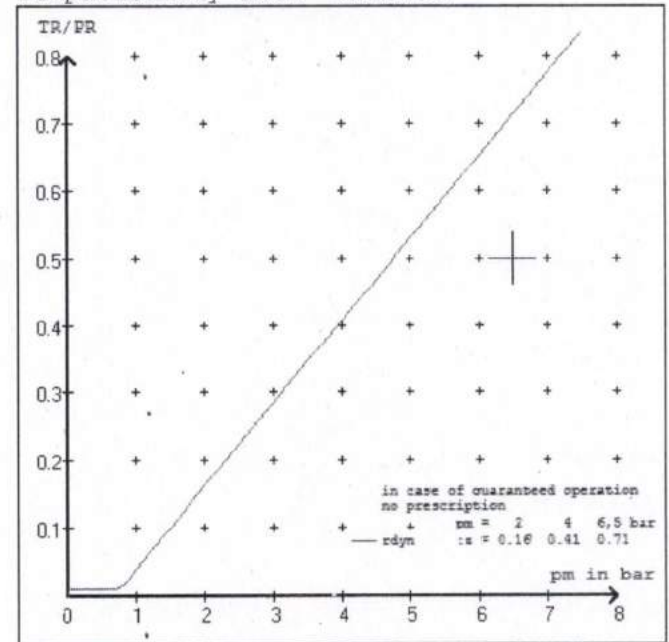
brake chamber pressure unladen



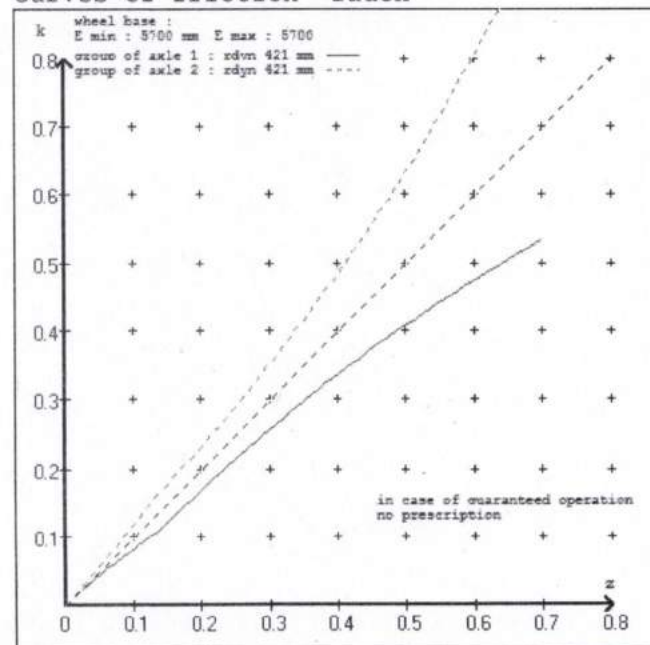
compatibility band laden



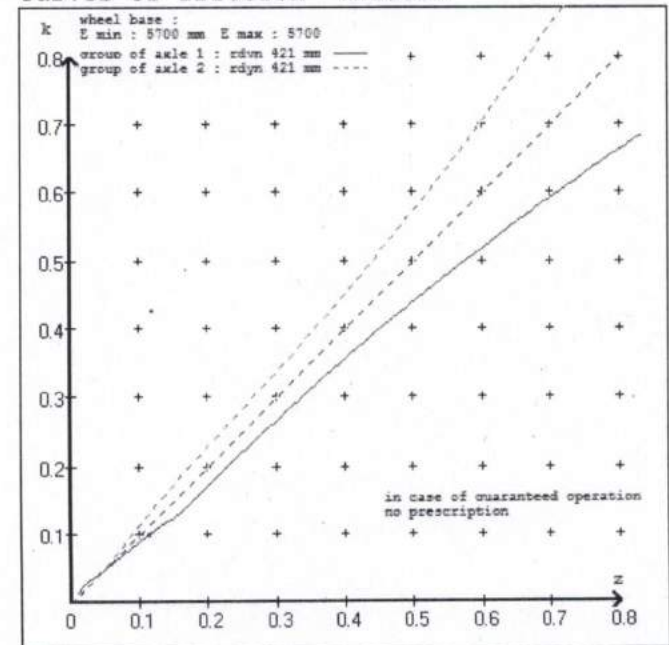
compatibility band unladen



curves of friction laden



curves of friction unladen



vehicle manufacturer: DOMETTS
 trailer model : 2017 5A TANKER, E1001 SAF
 trailer type : 5-axle-full-trailer

brake chamber and lever length :

axle 1 : 2 x type/diameter 18. (Meritor) lever length 76 mm
 axle 2 : 2 x type/diameter 18. (Meritor) lever length 76 mm
 axle 3 : 2 x type/diameter T.14/24 (Meritor) lever length 76 mm
 axle 4 : 2 x type/diameter T.14/24 (Meritor) lever length 76 mm
 axle 5 : 2 x type/diameter 14. (Meritor) lever length 76 mm

brake diagram :

valve :

480 207 0.. 0 WABCO EBS relay valve or 480 207 2.. 0
 480 102 0.. 0 WABCO EBS trailer modulator

EBS input data

=====

vehicle manufacturer: DOMETTS
 trailer model : 2017 5A TANKER, E1001 SAF
 trailer type : 5-axle-full-trailer
 brake calculation no. : TP 2017A

tire circumference main axle : 2650 for rdyn max
 tire circumference auxiliary axle : 2650 for rdyn max

assignment pm / deceleration z: pm 0.8 bar z = 0.010
 (laden condition) 2.0 bar z = 0.134
 6.5 bar z = 0.600

control pressure pm			6,5	control pressure pm			0.8	2.0	6.5
axle	axle load unladen	bellow pr. unladen	brake pr. unladen	axle load laden	bellow pr. laden	brake pr. laden			
1	1400	to be	1.5	8000	to be	0.4	1.3	5.8	
2	1400	entered by the vehicle manufact.	1.5	8000	entered by the vehicle manufact.	0.4	1.3	5.8	
3	1100		1.2	6400		0.3	1.4	4.6	
4	1100		1.2	6400		0.3	1.4	4.6	
5	1100		1.2	6400		0.3	1.4	4.6	

The unladen values indicated in the above table are values for the basic parameter set. Higher unladen axle loads and liftaxles are automatically recognized and do not require separate adjustment. The above unladen axle loads must not be fallen below.

=====

axle 1	axle 2	axle 3	axle 4	axle 5
axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1	axle load pcy1
1400 1.5	1400 1.5	1100 1.2	1100 1.2	1100 1.2
1900 1.8	1900 1.8	1600 1.5	1600 1.5	1600 1.5
2400 2.2	2400 2.2	2100 1.8	2100 1.8	2100 1.8
2900 2.5	2900 2.5	2600 2.2	2600 2.2	2600 2.2
3400 2.8	3400 2.8	3100 2.5	3100 2.5	3100 2.5
3900 3.1	3900 3.1	3600 2.8	3600 2.8	3600 2.8
4400 3.5	4400 3.5	4100 3.1	4100 3.1	4100 3.1
4900 3.8	4900 3.8	4600 3.4	4600 3.4	4600 3.4
8000 5.8	8000 5.8	6400 4.6	6400 4.6	6400 4.6

spring parking brake

		<u>axle 3</u>	<u>axle 4</u>
no of TRISTOP-actuators per axle line KDZ		2	2
TRISTOP-actuator type		T.14/24	T.14/24
lever length	lBh in mm	76	76
stat. tyre radius	rstat max in mm	401	401
at a stroke of	s in mm	30	30
min. force of spring brake	TFZ in N	7605	7605
sp.brake chamber no Meritor.....		4	4
release pressure	pLs in bar	4.8	4.8

calculation:

ratio until road		4.2397	4.2397
$iFb = lBh * \eta * C * rBt / (rBn * rstat)$	for rstat in mm	401	401
brake force of spring br. Tf in N		63816	63816
$Tf = (TFZ * KDZ - 2 * Co / lBh) * iFb$			
braking rate	zf laden	0.380	
$zf = \text{sum}(Tf) / P + 0,01$			

Test of the frictional connection required by the parking brake

minimum wheelbase/minimum supporting width min Ef necessary to fulfil the regulations

$$\min Ef = E * (1 - PR/P + zferf * h/E) / (1 - zferf / (fzul * nf/ng))$$

min Ef = 4325 mm for E = 5700 mm

=====
min Ef = 4325 mm for E = 5700 mm
=====

- min Ef = minimum distance between front axle(s) (trailer) or support (semitraile) and the rear axle(s) (resultant of the bogie)
- E = wheel base
- fzul = 0.80 maximum permissible frictional connection required
- zferf = 0.18 maximum required braking ratio of the parking brake
- h = 1524 mm height of center of gravity - laden
- PR = 19200 kg maximum bogie mass - laden
- P = 35200 kg maximum total mass - laden
- nf = 2 no. of axle(s) with TRISTOP spring brake actuators
- ng = 3 no. of bogie axle(s)

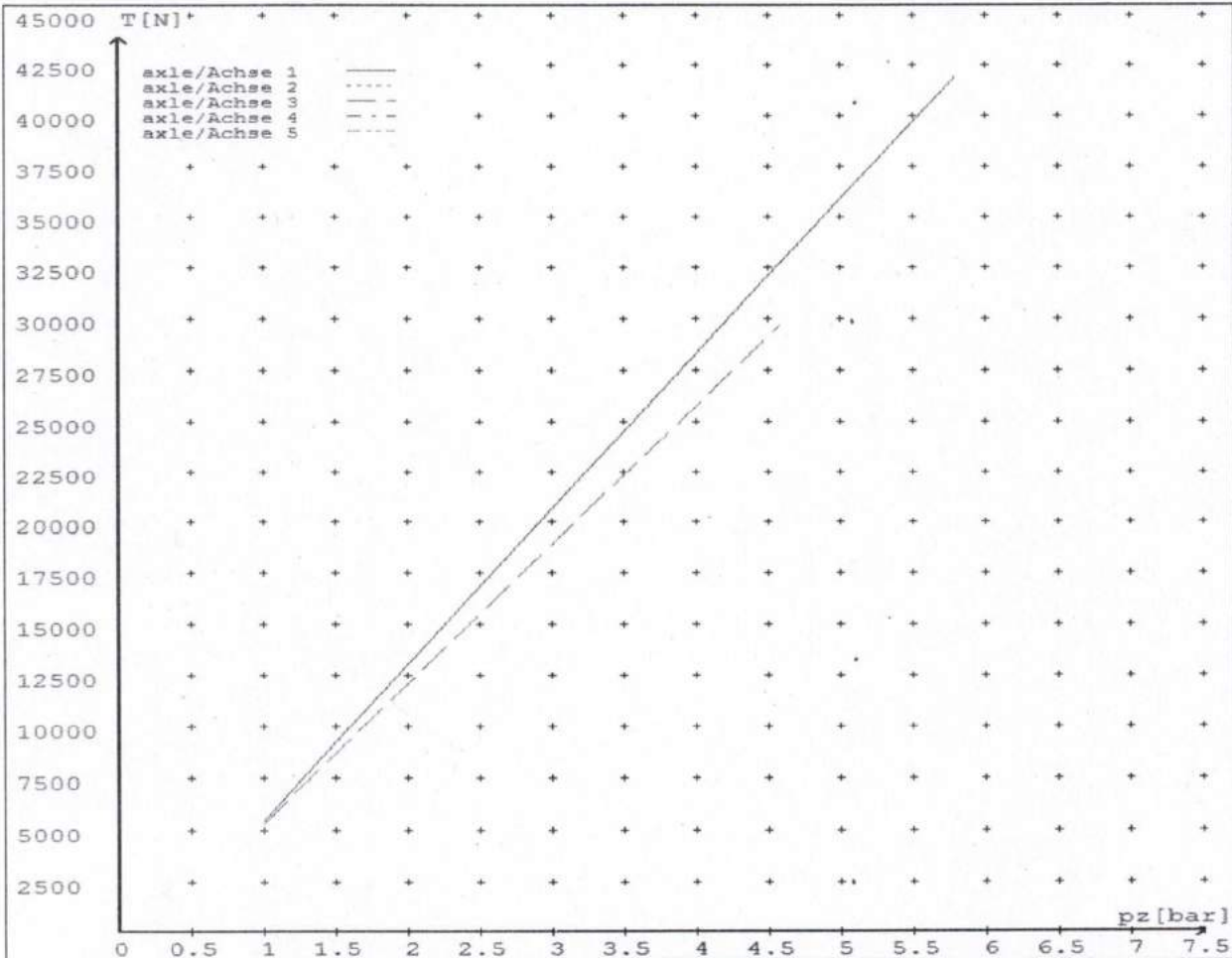
reference values

reference values for z = 50% for max rdyn: 421 mm

	pz [bar]	T [N]	T [N]
axle 1	1.0	5345	
	5.8	41873	
axle 2	1.0	5345	
	5.8	41873	
axle 3	1.0		5254
	4.6		29655
axle 4	1.0		5254
	4.6		29655
axle 5	1.0		5254
	4.6		29655

VIN - no.:

	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	18./	18./	T.14/24	T.14/24	14./
Maximum stroke smax = ...mm maximaler Hub smax =mm	64	64	64	64	64
Lever length =mm Hebellänge =mm	76	76	76	76	76



reference values for $z = 0.5$

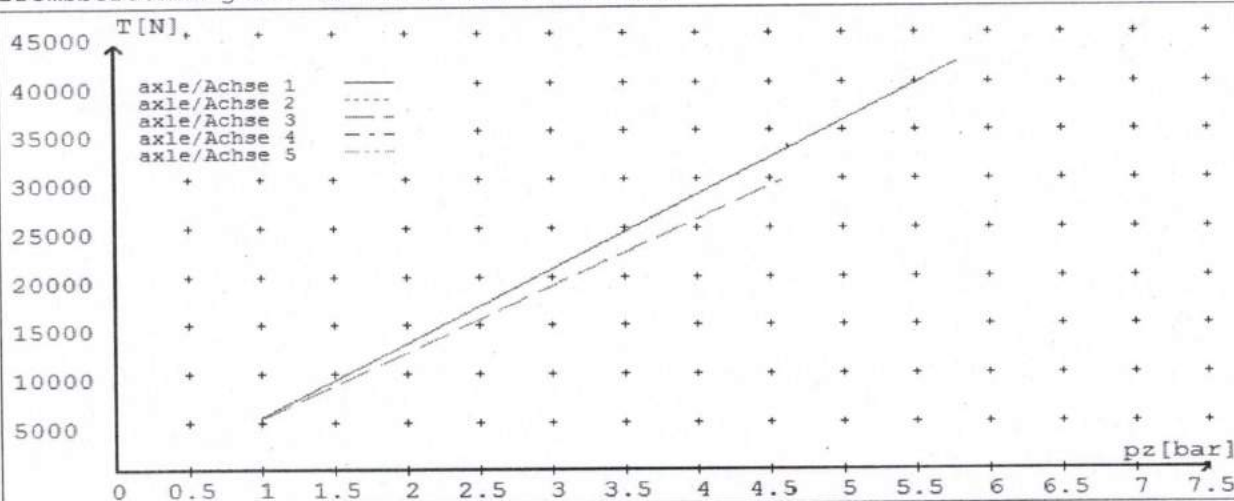
for max r_{dyn}: 421 mm

Angabe der Referenzwerte für $z = 0.5$

für max r_{dyn}: 421 mm

brake calculation no: TP 2017A date 17.02.2017

Bremsberechnung Nr: TP 2017A vom 17.02.2017



	Axle(s) / Achse(n)				
brake cylinder type (service / parking) Bremszylinder Typ (Betrieb / Fest)	18./	18./	T.14/24	T.14/24	14./
Maximum stroke s_{max} = ...mm maximaler Hub s_{max} = ...mm	64	64	64	64	64
Lever length = ...mm Hebellänge = ...mm	76	76	76	76	76

GOUGH**Transpecs**

**HEAVY VEHICLE BRAKE RULE
32015/4 WORKSHEET
PROCEDURE DOCUMENTATION SHEET- (PDS)
&
CONFIRMATION OF COMPLIANCE**

CERTIFICATE NO:

CUSTOMER NAME:

CUSTOMER ORDER NO: DATE RECEIVED:

VEHICLE TYPE:

VIN / CHASSIS NO:

BRIEF SPECIFICATION AS CERTIFIED TO SCHEDULE 5

BRAKE VALVES:	MAKE	TYPE
PRIMARY RELAY:	WABCO	<input type="text" value="480 102 064 0"/>
SECONDARY RELAY:	WABCO	<input type="text" value="480 207 001 0"/>
SPRING BRAKE RELAY:	SEALCO	<input type="text" value="110701"/>
PARK BRAKE VALVE:	SEALCO	<input type="text" value="17600B"/>
LOCKED RATIO:	<input type="text"/>	
MAKE:	<input type="text"/>	
SETTING:	<input type="text"/>	

OTHER VALVES

OTHER VALVES

MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>
MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>
MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>
MAKE:	<input type="text"/>	TYPE	<input type="text"/>	SETTING	<input type="text"/>

BRAKE CHAMBERS

	FRONT	REAR	5TH
MAKE:	TSE	TSE	TSE
SIZE:	18HSCLD65	1416HTLD64	14HSCLD64
STROKE: MM	65mm	64mm	64mm
SLACK LENGTH: MM	DISC	DISC	DISC

BRAKE CALIPERS**BRAKE CALIPERS:**

SAF	
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FRICTION MATERIAL: OEM Aftermarket**LINING BRAND****LINING BRAND****FRONT****REAR**

SAF 607

SAF 607

OTHERS**TYRES:****FRONT****REAR**

265/70R 19.5

265/70R 19.5

COMMENTS

EBS, SPECIAL CONDITIONS APPLY. SEE INSTRUCTIONS ON LT400 #

0**NOTES:**

PACKING SLIP NO. _____

PROCESS TIME _____

CONFIRMATION OF COMPLIANCE

I CONFIRM THAT THE VEHICLE IDENTIFIED IN PAGES 1 AND 2 OF THIS CONFIRMATION OF COMPLIANCE COMPLIES WITH ALL RELEVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY VEHICLE BRAKE RULE 32015/4, SCHEDULE 5.

DATE: 22/03/2017 SIGNED: 

NAME & ID: LANCE CAWTE (LPC)

PHONE (BUS): 09 980 7300 FAX (BUS): 03 3083277

POSTAL ADDRESS: TRANSPORT SPECIALTIES LTD
PO BOX 98-971,
MANUKAU CITY,
AUCKLAND 2241

POSITION: Brake certifier HVEK

I CONFIRM THE BRAKE SYSTEM OF THE VEHICLE IDENTIFIED IN PAGE 1 OF THIS STATEMENT OF COMPLIANCE AS MODIFIED BY MYSELF, CONTINUES TO COMPLY WITH ALL THE RELEVANT REQUIREMENTS OF THE CURRENT NEW ZEALAND HEAVY BRAKE RULE 32015/4 SCHEDULE 5.

DATE: _____ SIGNED: _____

NAME: _____

CERTIFIERS ID: _____ POSITION: _____

PHONE (BUS): _____ FAX (BUS): _____

COMMENTS: _____

